

Date: Sun, 10 Oct 93 04:30:24 PDT  
From: Ham-Ant Mailing List and Newsgroup <ham-ant@ucsd.edu>  
Errors-To: Ham-Ant-Errors@UCSD.Edu  
Reply-To: Ham-Ant@UCSD.Edu  
Precedence: Bulk  
Subject: Ham-Ant Digest V93 #73  
To: Ham-Ant

Ham-Ant Digest                      Sun, 10 Oct 93                      Volume 93 : Issue    73

Today's Topics:

    ??Thick or thin diapole wire best???  
    Automobile ground-plane ground needed? (2 msgs)  
Transmit 2m and 70cm at the same time on a dual band antenna (2 msgs)

Send Replies or notes for publication to: <Ham-Ant@UCSD.Edu>  
Send subscription requests to: <Ham-Ant-REQUEST@UCSD.Edu>  
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Ham-Ant Digest are available  
(by FTP only) from UCSD.Edu in directory "mailarchives/ham-ant".

We trust that readers are intelligent enough to realize that all text  
herein consists of personal comments and does not represent the official  
policies or positions of any party. Your mileage may vary. So there.  
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Date: 9 Oct 1993 14:57:54 GMT  
From: sdd.hp.com!swrinde!cs.utexas.edu!asuvax!chnews!thunder!  
jbromley@network.ucsd.edu  
Subject: ??Thick or thin diapole wire best???  
To: ham-ant@ucsd.edu

In article <CEM2EC.8q0@ucdavis.edu> szhall@bullwinkle.ucdavis.edu () writes:

>I just put up a 40 meter diapole and it works very well, I also use it for  
>other bands with a tuner. I am using RG 58U feed line.

Using RG-58 is OK for 40 meters but it might be a bit lossy when  
the SWR goes up on the other bands. Cecil, KG7BK, has posted  
several articles recently that looks at this problem. A better  
choice would be RG-8, or, if your tuner has a built-in balun, 300-ohm  
twinlead. If you go with twinlead, you would have to use the tuner  
on 40 as well as the other bands.

> My question is  
>this: Other than strength is it better to use thicker wire for a ant.

>Someone one told me if I use a thick wire I don't need to adjust the  
>tunner so often between freq. Thicker wire is broad band. What's ur  
>comment..Tnx for reading this..Jeff

Your friend is partially right. But when he says thick, he means a couple of \*feet\* in diameter, not a few millimeters. Thick wires at 7 MHz are approximated in practice with wire cages held apart with circular spacers every few feet.

What may be more practical would be to connect multiple dipoles to the feed point you now have for the 40-meter antenna. Cut these dipoles to be 1/2 wavelength long on the other bands you work, one dipole per band. These other dipoles can run parallel to the existing 40-meter one, but would work better if placed at various angles from it. Most antenna handbooks show how to construct one of these multiple-dipole antennas.

jbromley@sedona.intel.com (Jim Bromley, W5GYJ)

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Date: 9 Oct 1993 14:31:02 GMT  
From: sdd.hp.com!math.ohio-state.edu!cs.utexas.edu!asuvax!chnews!thunder!  
jbromley@network.ucsd.edu  
Subject: Automobile ground-plane ground needed?  
To: ham-ant@ucsd.edu

In article <1993Oct8.235642.1@wsub.ctstateu.edu> ritterbus001@wsub.ctstateu.edu writes:

>Hi, all,  
>

>When I use the 2m HT (with its own battery) in the car connected to a  
>mag-mount 1/4 wave, there is no electrical connection of the radio  
>"ground" to the "ground-plane" of the car's metal body. Would it  
>improve my radiation to provide a ground? Will the rule still be the  
>same when I get my 5/8 wave mag-mount working and connected?

All mag-mount antennas make an "rf" ground through the capacitive reactance between the magnet/base and the car body. At VHF this is a relatively low value (maybe half an ohm, max) and doesn't affect antenna operation. So, no, it wouldn't help to provide a physical connection to ground. What does help is to place the antenna so that it has at least 19 inches of unobstructed, flat car body surrounding it. The center of the roof is ideal.

When you go to a 5/8-wave antenna, you will find it less susceptible to poor placement due to having a full 1/2 wavelength of radiating

conductor out in the clear. However, having it in a good location helps also.

>Jim  
>ritterbus001@wcsu.ctstateu.edu

Another Jim, W5GYJ (jbromley@sedona.intel.com)

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Date: Sat, 9 Oct 1993 04:56:42 GMT  
From: swrinde!cs.utexas.edu!math.ohio-state.edu!howland.reston.ans.net!  
spool.mu.edu!nigel.msen.com!yale.edu!cs.yale.edu!wcsu.ctstateu.edu!  
ritterbus001@network.ucsd.edu  
Subject: Automobile ground-plane ground needed?  
To: ham-ant@ucsd.edu

Hi, all,

When I use the 2m HT (with its own battery) in the car connected to a mag-mount 1/4 wave, there is no electrical connection of the radio "ground" to the "ground-plane" of the car's metal body. Would it improve my radiation to provide a ground? Will the rule still be the same when I get my 5/8 wave mag-mount working and connected?

Jim  
ritterbus001@wcsu.ctstateu.edu

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Date: Sat, 09 Oct 93 08:23:49 CDT  
From: sdd.hp.com!spool.mu.edu!agate!iat.holonet.net!vulcan!kd4cim@network.ucsd.edu  
Subject: Transmit 2m and 70cm at the same time on a dual band antenna  
To: ham-ant@ucsd.edu

dl2@ukc.ac.uk (Darren Lissenden) writes:

> Is it possible to transmit on 2m and 70cm at the same time using a  
> diplexer to connect the two sets to a X50 or X300 or simalar.  
> I was wondering if it was possible to have two packet stations running  
> together on the same antenna as there would be times when they would transmit  
> at the same time.

That should work fine. There are a number of folks locally doing that. In fact one PBBS is using a Comet Tri-bander and running on 6M, 2M and 70cm with no problems that I can detect (I am only on 6M and 2M).

de Jerry

BHM AmprNet - kd4cim@kd4cim.ampr.org [44.100.113.19]  
Packet Radio - KD4CIM @ KD4CIM.AL.USA.NA  
Internet - kd4cim@vulcan.com

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Date: 9 Oct 1993 19:04:18 GMT  
From: sdd.hp.com!col.hp.com!bobw@network.ucsd.edu  
Subject: Transmit 2m and 70cm at the same time on a dual band antenna  
To: ham-ant@ucsd.edu

Darren Lissenden (dl2@ukc.ac.uk) wrote:

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: I was wondering if it was possible to have two packet stations running  
: together on the same antenna as there would be times when they would transmit  
: at the same time.

I run a 70 cm repeater with a 2M remote transceiver on it, both fed  
to a Diamond X50 using a "duplexer". No problem.

Make sure you don't exceed the maximum power ratings of the various pieces.  
Watch out for the third harmonic of the 2M transmitter landing on  
the 70 cm receive frequency as it can degrade the system performance.

Bob Witte / HP PMO (Colo Springs) / bobw@col.hp.com / KB0CY / (719) 590-3230

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End of Ham-Ant Digest V93 #73  
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